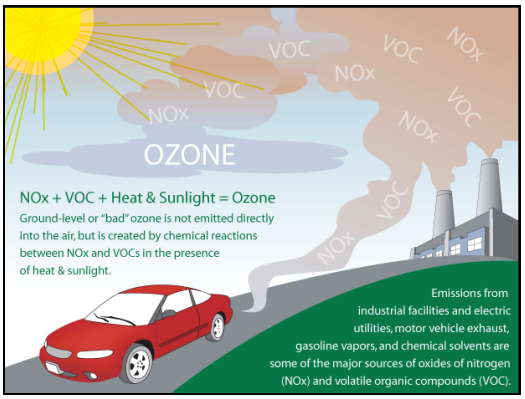
Ground-level Ozone

Ground-level ozone: Good Up High - Bad Nearby
Ozone (O_3) is a highly reactive gas composed of three oxygen atoms. Depending on where it is in the atmosphere, ozone affects life on Earth in either good or bad ways.

Stratospheric ozone is formed naturally through the interaction of solar ultraviolet (UV) radiation with molecular oxygen (O_2). The stratospheric "ozone layer" extends from approximately six to thirty miles above the Earth's surface and reduces the amount of harmful UV radiation reaching the Earth's surface.

Tropospheric or ground-level ozone forms primarily from reactions between two major classes of air pollutants: volatile organic compounds (VOCs) and nitrogen oxides (NO_x). These reactions depend on the presence of heat and sunlight, meaning more ground-level ozone forms in the summer months.



Source EPA

NO_x is emitted by cars, power plants, industrial plants, and other sources. Significant sources of VOC emissions include gasoline pumps, chemical plants, oil-based paints, auto body shops, print shops, consumer products and even some trees.

Ozone Season in Kansas: April through October is known as the "ozone season" however, ozone pollution can occur throughout the year in some southern US locations. Ground-level ozone pollution is not limited to big cities like Los Angeles. We have our share of BAD AIR DAYS right here in both urban AND rural areas. Ground-level ozone can also be transported great distances in the atmosphere to affect air quality in other areas.

See Ozone: Good Up High - Bad Nearby for more information.